

French Polishing

a treatise on finishing raw wood with shellac

by John Coffey

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French polishing is the application of shellac to a surface, either raw wood or one previously finished, by means of rubbing the surface with a pad "charged" with a dilute solution of shellac. It is considered by those in the antique trade to be the most beautiful and most expensive finish available. A fine gloss can be achieved with the thinnest possible film. This is desirable for a number of reasons: First, because there is much less material over the wood, the wood "reads" better. Secondly, a thin film makes removal with ethanol quite easy and safe. Lastly, thick shellac films may not dry properly and will be prone to crazing or "alligatoring."

The advantages of French polish over other finishing methods are many. French polish can easily be renewed, even after hundreds of years. Because it is rubbed on, it follows the undulations of the wood, a feature typical of old surfaces. It will fill the many scratches and dents that appear on antiques. In fact, wood that has been badly marred by injudicious sanding can be finished and have those defects minimized without resorting to aggressive sanding or scraping of the wood. This is because the slurry that is filling the grain will fill sanding marks with the color of the wood itself. No sanding between coats is required for coats of French polish to bond to each other as the solvent reactivates the existing film. It is easy to color repairs during polishing. The combination of alcohol-soluble aniline dyes and dry pigment in shellac can be used as glazes to match new repairs to the existing wood. Should you not be happy with the way the

repair looks or how the job is going, wiping it off with an alcohol rag is simple and fast.

French polish has a few disadvantages however. Shellac is susceptible to marking from heat over 140° F. or from alcohol or water left on it too long. French polish is generally a high gloss film and does not lend itself to a matte or satin finish without careful rubbing out. As any shellac film, French polish, if applied too thickly, will degrade badly. The shellac must also be relatively fresh (not more than six months old) or it may not dry properly. Lastly, French polish requires a certain *finesse* to achieve a perfect finish. As with most things, it is a skill that takes time to perfect although serviceable results can be achieved by the amateur. An imperfect finish can be improved with a more aggressive rub-out with a combination of wet-dry paper and steel wool or pumice, finishing off with a coat of wax. You can almost always improve a shellac finish.

There probably are as many ways to French polish as there are French polishers. Different techniques may be used in the restoration of finishes as well. To finish raw wood, I have found this technique to produce a clear, thin finish.

Some woods do not need the laborious first step of the "first polish" where the aim is to fill the pores of the wood with a pumice/wood/shellac mixture. Woods that have microscopic pores such as pine, poplar, beech, cherry, and maple do not need to be filled with pumice. However, mahogany, oak, walnut, and rosewood all require filling for the best filled-grain finish. New wood

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will take longer to fill than previously finished wood and will require more “first polishes” with a few days rest between applications as the grain has not yet been stopped up.

Lighting

When French polishing as with any other finishing, it is necessary to work *under* adequate light so that you can see what changes are taking place on the surface using the reflection of the overhead bulb. While terrible for color work, florescent bulbs are excellent for examining your polishing progress while you are working. Careful observation will tell you when the grain is beginning to fill, if the pad is too wet, or if you are getting a good gloss. By turning the work under fluorescent lights, you will get two views of the surface, one when the bulbs’ reflection is with the grain and one when their reflection is perpendicular to the grain. When polishing opposite the direction of the bulb, the surface will appear glossier and will show defects and streaks better.

Staining

Changing the color of wood can be done by dying the wood first or by adding dye to the finish while polishing (not recommended), or by glazing with pigment between coats of shellac. Typical oil stains such as Minwax® are usually a blend of oil dye and pigment in an alkyd resin base. This is not a good stain under this method of French polish. The first stage of polishing where pumice is used to abrade the wood will abrade away the surface pigment, changing the desired color. Water-soluble dye is better because the dye colors the fibers of the wood and while some color comes up, most of the color remains. One should account for this when determining the strength of the

dye. When filling dyed wood, try to keep an evenness to the color. It will be tempting to add more pumice and overwork an area that resists filling but invariably more of the dye will be removed and a light area will result. Better to go over the whole surface, even areas already filled. Wood dyed darkly will be difficult to French polish because of this. Fortunately a certain variability in color will not adversely affect the look of an antique and usually, dye is used more weakly to repair sun bleaching.

When all the grain has been filled and you are ready to build a film, an oil or acrylic glaze can be used to change the color. This later method of coloring is excellent for repairing defects or matching repairs, not for wholesale color changes.

About shellac and alcohol

The choice of shellac will be determined by what you are finishing. With mahogany and rosewood, you might use a ruby or orange shellac for a slightly tinted surface. In order to preserve the color of pale woods such as faded English walnut, tulipwood or satinwood, blonde or lemon shellac can be used. Dewaxed varieties may be used on table tops to aid in resisting water marking. You can use prepared Zinsser® orange or clear shellac which comes in a 3 lb. cut or Zinsser’s SealCoat® which is a 2 lb. cut, perfect for French polishing. You can also make your own by buying flake or button shellac from finishing suppliers, grind the flake or button and mix in the appropriate amount of ethyl alcohol (ethanol). Today, most denatured alcohol sold in hardware stores are nearly 50% methanol (wood alcohol) which is a denaturant and highly poisonous. I don’t recommend this alcohol as you will be breathing and touching this material. Also, methanol makes for a

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more brittle shellac film. Klean-Strip makes a denatured alcohol called Klean-Strip® Green® that is mostly ethanol, with a small amount of denaturant. Most hardware or paint stores can order it if they don't yet carry it. Behlen's Behkol® is another mostly ethanol alcohol. If you in a state that permits the sale of grain alcohol and you don't mind paying the liquor tax, you can use alcohol like Everclear 190 proof (95% alcohol, 5% water). Other lower proof alcohols are unsuitable as the added water will not effectively dissolve shellac.

To make up a little over a 1/2 pint of 3 lb. cut shellac, mix 6 oz. of ground shellac in a 1/2 pint of ethanol. This will make up a bit more than 1/2 pint and easily do most any job. This is a good cut to brush but will need to be further reduced with alcohol to get a better viscosity for French polishing. For French polishing, the shellac should have a viscosity that allows it to be readily absorbed into the cotton batting and not sit on the surface. Grind the shellac (flake or button) in an electric coffee mill, put the measured ground flake into a Mason jar and add the proper ratio of alcohol. I shake it for about 2 or 3 minutes and then shake it again a number of times over the course of an hour. If you don't shake it, a thick, plastic mass forms on the bottom which takes a very long time to dissolve, especially dewaxed varieties. If you forget the shaking you will be stirring a taffy mass forever!

Whether the shellac is pre-mixed by Zinsser or made from scratch, it should not be over a year old. Zinsser has a code that is stamped on the top of the can which can be de-coded to give the date and place of manufacture. The first letter is the code for the place of manufacture (S= Somerset, NJ), the second character is

a number and it is the last numeral for the year of manufacture (6=2016) the third character is the month (1-9=Jan-Sept; o=October, n=November, d=December). The next two characters are the day (01-31). The last characters are batch numbers. So S7704B would be Somerset, July 4th, 2017. When you make your own, put a date on the jar. Zinsser suggests its shellac can remain fresh for 3 years.¹

Making a polishing pad and pumice board

French polish is applied using a pad or 'rubber.' This is an egg sized wad of cotton (I use surgical cotton) with an outer covering of either linen, silk or cotton. Smaller pads can be made for small or irregular surfaces such as legs and chair parts. Linen is best for filling the grain because it holds the pumice on the surface and doesn't get lost in the weave as in other materials. It wears much better. Silk will also work but is less durable. Cotton (100%) is excellent for building the finish but less suitable for the 1st polish with pumice. Rags with synthetic material will work, but I have found them to be less than optimal in polishing.

I also make a pumice board that holds a sprinkle or two of pumice and a small mound of burnt sienna dry pigment. During the process the pad will get charged with just a pinch of each to keep the pad abrasive enough to help with the filling and color the filler. A small Mason jar of alcohol is kept close by to charge the pad.

¹ <https://www.popularwoodworking.com/flexner-on-finishing-blog/user-unfriendly-zinsser-bulls-eye-shellac/>

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Oil

Before we begin, the subject of using mineral or linseed oil should be discussed. This is a common ingredient in most French polish treatises. It is primarily used to make polishing easier. It will also make the grain “pop” visually though it may be temporary. Using oil in the process is very forgiving of a pad with too much shellac in it. It will make the final surface a bit shinier but is mostly used as a lubricant to prevent the pad from dragging, thereby allowing the polisher to use a drier or stickier pad and press harder. It works great. It doesn’t seem to impair adhesion and certainly allows for a faster build as a pad with a higher concentration of shellac can be used. This technique is used by many polishers and is used in the method of George Frank whose technique was the one I used when first beginning to learn the process. It begins with oiling the wood. For more on that technique, I suggest reading the Fine Woodworking article listed at the end of this monograph. The reason not to use oil, as suggested to me by Martin O’Brien, a conservator in Winston-Salem, is to prevent oil contamination to the wood and glue line. It can travel quite deeply through solid wood. Since then I have virtually eliminated oil in my French polishing schedule, especially on historic restorations. I do not want to add something that will be impossible to remove at a later time. Either way, the technique is the same but oil may speed up the learning curve. However, too much oil can be a real problem where it will weep through a dried finish months later, creating pock marks in the film. I have seen other polishers’ work where oil is used throughout the

process and then spirited off later. I have also seen some of the failures of this method. The method I advocate does not require oil and gets beautiful results, eliminating another material that might cause issues later. Lastly, do not use linseed oil. It is a drying oil which will polymerize making the shellac film harder to re-amalgamate. It also may work against the longevity of the film as the oil may be expanding, absorbing oxygen or water vapor while the shellac is shrinking. The rags from linseed oil are susceptible to spontaneous combustion.²

The Technique

French polish has four basic steps: The first polish fills the grain. The second polish continues filling the grain after it has shrunk. There may be multiple “second” polishes in order to get a filled surface that is no longer shrinking. Next, we build the film or “body up”, and finally, we polish or “spirit off”, getting a perfect, streak-free surface. The practical limit to the size area you can French polish is generally your reach—how long of a pass you can make. I sometimes “walk” the pad over a long top. Also, work on one element at a time. A top might be one element. A drawer front, another element. The larger the surface the more you will need to recharge the pad. However, there is an optimal size, below which the polisher must wait a little before going over again. For me, a 2-3 square foot (1’ x 2-3’) surface is the smallest practical size for a session. Often I’ll gang drawer fronts to get a larger “element”.

² Though mineral oil is a non-drying oil and does not typically combust, caution dictates that all your oily rags should be disposed of carefully to avoid spontaneous combustion. Generally it is best to allow them to dry outside, separated from each other. Kept in a clump, they will accelerate the exothermic reaction (heat is given off) of drying and produce enough heat to combust.

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The first polish

A 3 lb. cut should be reduced with a third more alcohol to make the polish thin enough to easily soak into a cotton pad without staying on the surface. A 2 lb. cut is ideal. If you're going to wear gloves, use thin latex or nitrile gloves. Because I am always pressing the pad into my palm to assess the wetness of the pad and disperse the shellac more evenly in the pad, shellac will dry on the pad and flake off, getting little nibs in your film. If pressed against my naked palm, the shellac dries less hard and doesn't flake off. That is why I am very concerned with the amount of denaturant in my alcohol.

Take the cover off your pad and charge the cotton batting with a thin, 2 lb. cut, shellac solution so that the pad is pretty well soaked. This is the only time the pad is charged this heavily. This is the medium that binds the pumice/wood slurry into the pores. Replace the linen cover and tap the pad to the palm of your other hand to disperse the shellac into the pad and get a sense as to how wet it is. This will become habit every time you charge the pad. Apply the shellac initially in long strokes with the grain to lock in any dye. Do not overlap until the first coat has dried (seconds). Make sure the entire element you are working on is well covered. You may need several passes to get complete coverage. At this point, you have covered and sealed the wood with a small amount of shellac. If the wood is a close-grained wood like maple or cherry (wood discussed earlier) then move on to the bodying up stage. However, mahogany and walnut will require the filling stage if you are looking for the filled-grain finish that French polish is so famous for.

Once the entire surface is covered, sprinkle the top with pumice (I use a kitchen salt shaker) with a light dusting evenly over the surface. Each wood specie will use more or less depending on the amount and size of the grain. Only experience will tell you the optimum amount. Better to err on the skimpy side and do it more often. Since you will be abrading the surface, the initial motion should be with the grain so any abrading of the dye is kept with the grain. Charge the inside core of the pad with thin shellac, not quite as much as before but the pad should not be dry. With the pad, push the filler around the surface and into the grain by pressing down, lightly at first and harder as the pad dries, alternating between circular motion and straight-line motion. The surface of the wood is rubbed with the pad in circular motions, 3-4" in diameter, moving across the surface about an inch at a time, more if the pad is wet, less as the pad begins to dry. What this motion does is move the shellac/pumice/wood slurry off the surface and into the grain. This slurry will fill the grain and will take on the color of the wood. Check the pad for color. Too much pumice will give the fill a gray color which is to be avoided. If it is gray, dab some burnt sienna dry pigment onto the pad and fill the grain as usual. This will color the filler enough so it doesn't stand out. If it seems to color the surface, you only need to polish the area more, moving what is on the surface into the grain. Don't use the sienna until the wood has been polished a bit.

Go over the entire surface until all the pumice has been pushed into the grain and none is left on the surface. You will feel the pad glide more smoothly and should not see any gritty areas. It will not sound gritty. Inspect the surface closely to see how the grain is being

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filled. You will probably have to sprinkle pumice on the surface again and, again, charge the pad, but with less shellac (remember, remove the cover and apply the shellac to the cotton core). Polish as you did initially and push the pumice slurry around and into the grain. Initially you will feel that you are making no progress and may feel you need make some adjustment. Be patient and keep polishing. Some areas will fill faster than others. Add more pumice to those areas that need filling but don't concentrate on those areas with the pad. Polish the whole surface. Keep polishing until the pad is dry. As it dries, press harder, make tighter circles and slow your progress over the surface. If you have added enough pumice the first time, only an occasional light sprinkle on the pad will be necessary. There is usually a point where it seems that, all of a sudden, the grain is filling. You have found the ideal conditions for filling. Try to remember how wet the pad is, how tight you are swirling and how hard you are pressing. I have found that a dryish pad, pressing hard, and making tight circles marching down the board in an orderly manner gets the job done fastest. Edges should be done first and concentrated on as these are more difficult because they are touched by only one side of the circular motion. The middle is hit more often and as George Frank writes, they "will do themselves". The pad should not be charged with more shellac as it dries unless you are also adding pumice. If the pad is too dry, use just alcohol. The mistake of the beginner is to put too much shellac on the surface because it is not filling fast enough. Then there is too much finish to move around effectively with the pad. The longer it takes to fill the grain, the better the result will be. It takes a good half hour to an hour to fill the grain on a

mahogany top two square feet. Smaller surfaces need a bit of time before being hit again. Try to gang the smaller work so your not waiting around for things to dry – two drawers at a time, all the legs, etc.

During the filling stages, alternate between "O" shaped swirls and with-the-grain polishing. In the beginning it will be more "O"s and less straight-line. Closer to the end it will be more straight-line than "O"s. A dab of pumice applied to the pad will help move the finish around. As the pad gets drier, more pressure can be applied to the pad; tighter circles will fill the remaining grain quickly. This is when you'll really see the grain fill. At this point, you should not release a discernible amount of the shellac solution, so regulate the pressure of the pad toward that end. The drier the pad the harder you can press. The pad should be almost dry before recharging it with alcohol and very little shellac, if any. Towards the end of filling, it is best to apply the pumice to the pad with your finger and fill localized areas not yet filled. Be careful not to rub one area continuously or you will pull the filler out of the grain and deplete the surface of finish, and color if the wood has been dyed. The surface will then have a dull and grainy spot that will be difficult to remove. If you "burn" the film, apply a trace of oil to the spot with your finger and polish with a small amount of shellac on the pad. Polish over the dull spot into the area around the spot with alternating straight-line and swirls. Even alternate the direction of the straight-line polish. The area needs to dry somewhat between passes. You are trying to get a discreet shellac film back on that spot. If, try as you might, the dull spot persists then consider removing the finish and starting from scratch. Whenever something goes wrong with the finishing, do

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not hesitate to remove the finish. The second try usually goes a lot faster because you have already filled the grain to a large extent. Remove the finish with alcohol only and pick up the waste with burlap. This will pack finish into the pores. Then... take two!

After the grain has been filled it should be inspected for every pore being filled. Visually, the pores should have a shiny appearance whereas the solid wood around the pore will be matte (see fig.1).



fig.1 the grain is now filled

The wood around the pores should have little finish on them. All of the finish and slurry is in the grain at this point. When you are satisfied that all the grain is filled and there is no slurry on the surface, you may fill any voids needing wood filler or shellac stick. The surfaces should then be polished again adding just enough shellac to build up a gloss. It should look "deliverable" if not perfect. The surfaces should then rest overnight or, preferably, a few days. Add a little alcohol to the pad and put it in an air tight container to keep it from drying out.

The filler in the pores will shrink over time. Previously finished wood will have used less filler and will have less shrinkage. New wood will have markedly greater shrinkage. In any case, the grain will have to be filled a second and third time and sometimes more, though each time goes much faster.

The second polish seeks to remediate any deficiencies in the first polish. Start by charging the pad with alcohol only but do not make the pad as wet as before. The first motions should be with the grain with light pressure and no overlapping strokes in case the pad is too wet. These strokes will not rub through the finish. The idea is to soften the shellac and start moving whatever is left on the surface. Once the pad dries out a bit, change to circular motions. If there was substantial shrinkage in the grain you'll need to add a dab of pumice on the pad to speed things along and help get those difficult areas filled. The same circular motions occasionally alternating with straight line motion is continued. The pores of the wood that appear longer will take a bit more effort. Get the finish moving again and fill without gloss. You should not need to add shellac to your pad unless the surface is very dull. Proceed as in the first stage and get the surface to the same state as before, with all the grain filled. You will use a pad that is a lot less wet. The pad should not leave any wetness behind. If it does it must be left to dry or your next pass will remove the finish. Again, as the pad dries use tighter swirls with more pressure. Be organized in this process, not randomly swirling around the surface but instead working across the board in lines. The idea is that in order to move the finish into the pores you have to apply enough solvent long enough to get the shellac to move. Moving across

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the surface in 1/2 inch increments will give the pad enough contact for the right amount of time to accomplish this. The filler will pack into the grain and make the surface smooth and filled. When the grain is filled, you may work on building gloss and removing streaks and swirls as in the first polish. For this, a with-the-grain motion is used almost exclusively now. The pad may need a little shellac added. Work the pad until it is almost dry but not so dry as to drag and leave streaks. Once the pad dries out, charge it with a little alcohol and use a light touch for your first couple of passes and observe whether your depositing too much alcohol. Press the pad in your palm and continue. You should not attempt to build the finish other than to achieve the desired gloss. Again, you should always be looking at the reflection of light on the surface to see the changes taking place. Always keep in mind that the alcohol or thin shellac will act as a remover if applied too wet and the surface will appear dull and rough. Let the surface dry for a few minutes and avoid this too wet condition.

Again, rest the surfaces overnight or longer. The finish will again shrink due to solvent release but less than the first time. Repeat the filling and polishing stage until there is no shrinkage after a few days rest.

When you are sure no more filling is necessary, any repairs can be touched up with glazes made of a mixture of thin shellac and dry pigment or alcohol soluble aniline dye. Carefully polish over these repairs by padding with thin shellac, not so wet that you end up dissolving the film but wet enough that you'll not have to press hard. Layering the glazes between polishes works well to sneak up on the correct color. If the repairman keeps their touching up confined to only

the repair or defect, he/she will avoid making a muddy mess of it. Because dyes and pigments will appear different in different lighting, perfect color matching is impossible. Failure to get the right color of glaze often tempts the repairman to color beyond the repair. Try not to do this. A small almost matching touch-up is much better than a big almost matching touch-up. Try coloring with dots or lines made with a fine liner brush. Often adding a dot of color or black makes all the difference. Only when all the filling and touching up is done should any build of finish begin.

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Bodying up

At this stage of French polishing, the point is no longer to fill the grain but to build a streak-free film. Gloss is not a function of how thick the film is, but rather is a function of how reflective the surface of the film is. So once the grain is filled, you only need to put enough material on to make a discreet, continuous film. Tops should have a slightly thicker film as they see more wear and need more protection. Drawer fronts, sides of chests legs do not need as much material. For woods that have very small pores (pine, maple, cherry) this is the stage to begin polishing. Oiling the wood first is still an option. I rarely oil any of my work but it does help in learning.

You may change the cover to clean cotton and charge the pad with more shellac. One thing about the choice of the cover: cotton will release more shellac than linen so it is ideal for building a film. If you wish to have a thin, less glossy finish, stay with linen. I often do an entire job with linen alone.

At this point you do not want the pad too wet but it should be depositing a film. Make your first pass with-the-grain and be light with the pressure. You should observe whether it is too wet or too dry by looking at the lights reflecting on the surface. In your first passes, *do not* overlap each pass. Wait until the whole surface has been done once and go back and fill in the areas between passes. As the pad dries you may then overlap your passes. You may alternate between circles and straight-line but always finish straight-line. When you feel you are spinning your wheels, wet the pad again with shellac and/or alcohol. Getting the streaks out requires a special touch. Sometimes it is just a matter of going over the streak twice and no more.

The common mistake is to make the pad too wet in the attempt to speed things along. At any stage, if things start to go badly, STOP, and allow the finish to dry for an hour or so. Surface the finish with steel wool, ScotchBright® or 600 grit wet-or-dry sandpaper and remove any roughness on the surface as it will tend to pull more thinner or shellac than is needed and will further damage the surface. Be more careful not to let your pad get too wet or too heavily charged with shellac. Polish until the pad starts to drag. Stop, add a bit of alcohol (no need to take the cover off), disperse it into the pad with your palm, and start polishing, straight-line, lightly at first, and as the pad dries, harder.

Spiriting off

Finishing off or "spiriting off" removes trace oil from the surface and gets all the streaks out. If you have not used oil initially, this step is not necessary. Prepare a new pad with either a linen or cotton cover and new cotton batting. Both will work but with different results. The linen will give a softer, less glossy surface while the cotton will be a somewhat higher shine. Charge the new pad with a little alcohol only, press it against your palm repeatedly so that the alcohol is dispersed. The pad should be damp not wet. Using only a straight-line, with-the-grain motion, polish the top, initially without overlap until you are sure that pad is not too wet that it will substantially soften the film. Then you can go over any dull streaks with two maybe three passes, no more. You should see the streaks lessen. You should move on across the top and then come back to the streaks. You may overlap the passes when the pad is almost dry. By observing, you will notice that a too wet pad will attack

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the finish rather than polish it. Then you will know the feel of a pad that's just right.

Curved work

The polishing of chair parts and carved areas requires a slightly different technique. A smaller pad is needed and initially, you may need to apply the shellac with a brush to get a layer first and get it in the crevices. It should be a bit thicker, say a 3 lb cut and a little more time to let the shellac dry. A stiff, worn, bristle brush substitutes for the pad to polish the carvings. I generally use oil during the process, not just in the beginning. Though it is tedious to polish carvings and small parts with a small pad, the process seems to go faster on these curved surfaces. Before the final polishing is done, it is sometimes necessary to apply color to areas of low relief to simulate dirt and to cover defects in the stripping process (i.e. paint in crevices). This can be done with a little artists' oil paint mixed with linseed oil, brushed in and wiped off and allowed to dry. Usually though, I just mix a little pigment in shellac, brush it in and polish it off with a damp pad, leaving the color in the recesses.

General observations

As I have become more proficient at polishing, I find I use less and less material. And because gloss is only a function of the smoothness of the reflective surface, I really only have to build up enough material to form a continuous, discreet film. Since oil is difficult if not impossible to get out of wood once put in, I often polish objects of historic or antique value without oil. This is not too difficult if you become sensitive to the effects that the proportion of shellac and amount that

you load the pad will have on polishing a surface. Thin solutions need to be put on thinly so the solvent can evaporate before it damages the film. If you want to put on a heavier coat then the solution should be thicker (less solvent). A 3 lb. cut is probably as heavy a cut as I would brush and a 2 lb. cut for French polishing. But I often work the film with just alcohol, but not so much that I actually wet the film. The polisher needs to develop sensitivity towards the level of pressure he or she applies to the pad. The harder one presses, the more material is released. So I will not press down very hard on a pad that was just charged. I will press ever so lightly at first to determine what effect that degree of wetness has on my surface and adjust from there. Too wet and I'll bang the pad against my palm to disperse the liquid better and try again. You must learn what effect your pad has on the surface by observing the surface under the lights. A drier pad allows for a harder press which will actually move the shellac surface and fill in defects, scratches, swirls and the dreaded streaks! I'll even add a pinch of pumice to the pad to give the film a softer sheen. Finally I may use a large shoe polish brush with natural bristle to go over the surface, not after the film has thoroughly dried but just after I have polished the film. This same brush can be charged with pumice to dull a dried film to a satin sheen, a much better alternative to steel wool. I'll then spit on the brush to dampen it ever so lightly to pick up pumice/shellac residue. While I rarely wax a freshly polished surface (it looks so good!), it can be done especially if streaks seem to be a problem.

The trick to French polishing is to *see* what the surface is doing and *why*. This will greatly accelerate the

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time it takes to learn how to French polish. When to use more shellac and when you have enough shellac on the surface is key to perfecting your technique.

Supplies

Shellac: Kremer Pigment, Elizabeth St., New York, NY;
Shellac.net; Woodcraft Supply; hardware stores selling
Zinsser

Cotton batting: available at most pharmacies and
surgical supply houses

Woven or knitted cotton for covers: old all-cotton T-
shirts, all-cotton sheets and flannels

Linen for covers: old tablecloths and napkins.

Suggested Reading

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ultimate finish," *Fine Woodworking*, Vol. #58, July/
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